

Overview of the 1994 MMPA Amendments

The 1994 reauthorization introduced substantial changes to the provisions of the Marine Mammal Protection Act of 1972 (MMPA). One of the more notable changes involved replacing the Interim Exemption for Commercial Fisheries (section 114) with a long-term strategy for governing interactions between marine mammals and commercial fisheries (sections 117 and 118). Other amendments in 1994 included modifications of section 101(a)(5) regarding the taking of marine mammals listed under the Endangered Species Act (ESA); section 102 and 104 regarding NMFS oversight of captive marine mammals; section 120 dealing with increasing pinniped populations; sections 110 and 120 regarding ecosystem research; and section 119 on co-management agreements with Alaska Native organizations.

Governing Incidental Take in Commercial Fisheries

Of the changes made to the MMPA in 1994, those involving marine mammal interactions with commercial fisheries were the most significant and have required the most effort to implement. Prior to the MMPA Amendments of 1994, registered commercial fishers were mostly exempt from any marine mammal “take” prohibitions if the takes occurred incidental to commercial fishing operations. This included actions taken by fishers to protect their gear and/or catch from marine mammals. The 1994 amendments replaced the Interim Exemption for Commercial Fisheries (section 114) with a long-term regime for reducing interactions between marine mammals and commercial fisheries (sections 117 and 118). While the Interim Exemption provided a general exemption to the prohibition and served as a temporary means for collecting reliable data about marine mammal interactions with commercial fisheries, the new provisions under section 117 and 118 included a long-term strategy for governing interactions between marine mammals and commercial fisheries.

Section 118 established the immediate goal of reducing the incidental mortality or serious injury of marine mammals occurring in the course of commercial fishing operations to below the Potential Biological Removal (PBR) level and a long-term goal of reducing significant injury and mortality of marine mammals in fishing operations to insignificant levels approaching a zero mortality and serious injury rate goal (ZMRG), by April 30, 2001. To achieve this goal, the MMPA Amendments of 1994 put into place a long-term strategy to govern interactions between marine mammals and commercial fishing operations. This included the preparation of marine mammal stock assessment reports, a registration and incidental take monitoring program for certain commercial fisheries, a marine mammal incidental injury and mortality self-reporting requirement for all fisheries, and the development and implementation of take reduction plans.

In addition, the 1994 amendments allowed NMFS to permit the taking of endangered and threatened marine mammals incidental to commercial fishing for three-year periods provided that, in addition to other restrictions, incidental mortality and serious injury from commercial fisheries will have a negligible impact on the stock, and that a recovery plan has been or is being developed for the species. This provision falls under section 101(a)(5)(E).

Following is a summary of how the amendments specified that the new program work and how these amendments have been implemented to date.

Stock Assessments. The MMPA Amendments of 1994 required NMFS to complete a draft assessment for every marine mammal stock in U.S. waters by August 1, 1994. The first stock assessment reports were completed in 1995. The assessment is to include a wide variety of information about each stock, including its range of distribution, an estimate of its minimum population and its net productivity (population growth rate), estimates of human-caused deaths within the stock, a description of the commercial fisheries that are likely to have contact with a particular stock, and finally an estimate of the PBR level for the stock. The PBR level is the number of animals that can be removed from the stock without interfering with that stock's ability to reach or maintain its optimum sustainable population level.

The stock assessments must also identify "strategic stocks" as those stocks that have a level of human-caused mortality that exceeds PBR. Those stocks listed as endangered or threatened under the Endangered Species Act (ESA), depleted under the MMPA, or that are declining and likely to be listed as threatened or endangered in the future are also considered strategic stocks. Stock assessments for strategic stocks must be reviewed at least annually. For all other stocks, review is required every three years unless significant new information on that stock becomes available.

One of the major obstacles to sound conservation and protection of marine mammals is our limited understanding of the extent of human interaction for many stocks of marine mammals. These stock assessments provide NMFS with a scientific basis for the implementation of the commercial fisheries incidental-take regime. These reports are essential to accurately identifying the level of human-caused mortality and whether acceptable levels are being exceeded. To date, NMFS scientists have completed stock assessments for 147 stocks of marine mammals in U.S. waters.

Scientific Review Groups. The 1994 amendments also required NMFS to establish three regional scientific review groups, representing Alaska, the Pacific Coast (including Hawaii) and the Atlantic Coast (including the Gulf of Mexico). The first scientific review group, consisting of eleven members, was established on June 30, 1994. The scientific review groups review draft stock assessments and advise NMFS concerning marine mammal population status, trends, stock identity, and dynamics; uncertainty and research needed on the marine mammal stocks and research needed to identify methods to reduce incidental mortality and injury; impacts of habitat degradation and appropriate measures to reduce impacts; and any other issue NMFS or the groups consider appropriate in pursuing the goals of the MMPA. The scientific review groups must consist of individuals with expertise in marine mammal biology and ecology, population dynamics and modeling, commercial fishing technology and practices, and marine mammal stocks taken for subsistence by Alaska Natives, and must represent, to the extent feasible, a balance of viewpoints. The scientific review groups meet several times per year to review marine mammal stock data and information, to review draft stock assessment reports, and to provide NMFS with recommendations for future research.

List of Fisheries. Section 118 of the MMPA requires that NMFS publish, at least annually, a List of Fisheries that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals in each fishery. Category I consists of fisheries with *frequent* incidental mortality and serious injury of marine mammals. Fisheries in Category II have *occasional* mortality or serious injury, and fisheries in Category III have a *remote likelihood* of having an incidental mortality or serious injury of marine mammals. On September 1, 1994, NMFS published the 1995 List of Fisheries based on new provisions within the 1994 amendments.

The fishery classification criteria consist of a two-tiered, stock-specific approach that first addresses the total impact of all fisheries on each marine mammal stock, and then addresses the impact of individual fisheries on each stock. This approach is based on consideration of the rate, in numbers of animals per year, of incidental mortalities and serious injuries of marine mammals due to commercial fishing operations relative to the PBR level for each marine mammal stock. Tier 1 considers the cumulative fishery mortality and serious injury for a particular stock, while Tier 2 considers fishery-specific mortality and serious injury for a particular stock.

The primary functions of the List of Fisheries are to identify fisheries for which efforts to reduce these interactions may be necessary and to inform the public of the levels of incidental takings of marine mammals in various commercial fisheries. In addition, it informs the fishing industry of which fisheries are subject to certain provisions of the MMPA, such as the requirement to register vessels or to carry observers. The 1999 List of Fisheries identifies a total of 186 fisheries: six Category I fisheries, 23 Category II fisheries, and 157 Category III fisheries.

Serious Injury. Under section 118, the 1994 amendments mandated that NMFS use the concept of “serious injury” as a measure of fishery classification in the List of Fisheries and in the development of take reduction plans. A serious injury is defined in 50 CFR 229.2 as, “...*any injury that is likely to result in mortality.*” To address this issue, NMFS convened a Serious Injury Workshop in April 1997. The results of the workshop were published in February 1998.

NMFS has recently developed draft guidelines for determining what constitutes a serious injury to a marine mammal. NMFS’ draft guidelines are based on the results of the Serious Injury Workshop. NMFS plans to use these guidelines in assessing fisheries beginning in 2000. Workshop participants included veterinarians, individuals with expertise in fishing gear, marine mammal biologists, members of environmental organizations, and key NMFS personnel. While data presented at the workshop indicated that the eventual fate of an injured marine mammal is difficult to predict, participants concluded that those marine mammals with injuries that prevent or impede their movement or feeding are most likely to die as a result of these injuries.

Based on a preliminary review, NMFS expects that these guidelines may impact both the Atlantic pelagic longline fishery (including the Caribbean and Gulf of Mexico) and the Hawaii longline/setline fishery. The Atlantic pelagic longline fishery may be required to further reduce its level of incidental marine mammal serious injury and mortality in order to remain below

MMPA-mandated levels. Because a take reduction team has been established for this fishery, this team would need to be reconvened so that further bycatch reduction measures could be developed. Participants in the Hawaii longline/setline fishery may be required to register under the MMPA and to carry observers if requested by NMFS. This fishery is already subject to similar registration and observer requirements because of other fishery management and protected species concerns.

Reporting and Registration. On-board fishery observer programs are the best source of information when available. However, due to the significant expense of these programs, NMFS may base its classification of commercial fisheries on several different types of information. From 1989 to 1995, data collected from the Marine Mammal Exemption Program and fisheries observers allowed NMFS to collect information on fishery-specific levels of marine mammal incidental take and use it to develop comprehensive management regimes. This program provided an interim exemption for taking marine mammals by those commercial fishers who registered their vessels with NMFS and recorded marine mammal interactions in logbooks.

In accordance with the 1994 amendments, NMFS formalized the use of data from fishers' reports through the Marine Mammal Authorization Program (MMAP), effective with the 1996 List of Fisheries. Stranding data, alternative observer programs that use platforms such as aircraft and non-fishing vessels, and other sources of information along with on-board observer data are also used to classify fisheries if data from fishery observer programs are not available.

Under the MMAP, vessels engaged in commercial fisheries included in Categories I or II register with NMFS, and are authorized to take marine mammals in the course of fishing that are non-listed on the ESA. Each registered vessel receives a decal that must be displayed while the registration is current. Category I or II fishers must register every year to legally take marine mammals and must report all marine mammals injured or killed within 48 hours of the vessels' return to port. The reports are entered into a database to help NMFS evaluate each fishery's impact on a species or stock of marine mammals.

Through implementing these new management strategies, NMFS has described many of the U.S. commercial fisheries and has collected information on those fisheries for which few data exist concerning protected species interactions. This new information includes up-to-date geographic range of the fisheries, the seasons during which the fisheries operate, what type of gear is used, how the gear is fished, the number of participants in each fishery, what species of fish are targeted in each fishery, and what type of management program exists for each fishery.

In 1998, NMFS registered 531 commercial fishers in eleven commercial fisheries. Participants in an additional 17 fisheries were automatically registered by securing fishery license information from their respective state and/or federal permitting agencies. In 1998, NMFS received reports of incidentally injured or killed marine mammals from 113 fishers in 13 different fisheries.

Zero Mortality Rate Goal. Since its passage, the goal of the MMPA has been to reduce the incidental death and serious injury of marine mammals taken in the course of commercial fishing

operations to insignificant levels approaching zero, taking into account the economics of the fishery, the availability of existing technology, and existing state or regional fishery management plans. The 1994 amendments reaffirmed this Zero Mortality Rate Goal (ZMRG) and specified that all fisheries must attain the goal by April 30, 2001. NMFS was required to review fisheries' progress toward the ZMRG and report the results to Congress by 1998. Development and implementation of the take reduction plans has required considerable effort from NMFS, and the results of the take reduction plans are just now becoming available. As a result, NMFS has not yet reported its results on the progress of fisheries to reach ZMRG to Congress. NMFS is in the process of preparing a report to Congress on progress toward reducing marine mammal mortalities and serious injuries.

Monitoring of Incidental Takes. Section 118 of the MMPA specifies that NMFS must establish a program to monitor marine mammal mortalities and serious injuries incidental to commercial fishing operations. Information from on-board observers and reporting by vessel owners of incidental takes under the MMAP make up current monitoring programs. The objectives of fishery monitoring programs are to: obtain statistically reliable estimates of incidental mortality and serious injury of marine mammals in commercial fisheries; to determine the reliability of fishers' reports; and to identify changes in fishing methods or technology that may decrease incidental mortality and serious injury.

Monitoring programs are generally in the form of at-sea observer programs. Because agency funds are limited, Category I fisheries have generally received priority for observers. Observer programs developed for these fisheries have either confirmed their status as Category I fisheries or have been the basis for re-categorizing them as either Category II or III fisheries. NMFS currently operates observer programs for four Category I and five Category II fisheries, but due to lack of funds is unable to observe the remaining 25 Category I and II fisheries. This lack of observed information on the level of incidental mortality and serious injury associated with the majority of these remaining fisheries limits NMFS' ability to assess whether the current categorization of these fisheries.

Due to NMFS' mandates to reduce all fisheries-caused mortalities and serious injuries of marine mammals to a level of insignificant incidental take approaching ZMRG by April 2001, NMFS' monitoring programs must ensure that sufficient data will be collected in a timely manner to assess progress towards that goal. In June 1998, NMFS held a workshop to develop a process for the long-term monitoring of MMPA Category I and II commercial fisheries. Workshop attendees recommended that each fishery start the monitoring process with a one-year pilot program, followed by a two to three year operational program. The workshop attendees also recognized that current funding levels were insufficient to implement observer programs in fisheries for which data are inadequate.

NMFS has requested additional funding for observer programs in a FY00 budget initiative. NMFS has also created a National Observer Program Office within the NMFS Office of Science and Technology to coordinate monitoring efforts of all regionally operated NMFS observer programs.

Take Reduction Teams/Plans. Pursuant to the MMPA Amendments of 1994, NMFS must establish take reduction teams to develop take reduction plans to assist in the recovery or prevent the depletion of strategic stocks that interact with Category I or Category II commercial fisheries. However, there are considerable costs and personnel demands associated with the development of take reduction plans, including: convening a group of governmental and non-governmental representatives from affected sectors, providing for team travel expenses, obtaining and preparing the data necessary to support team deliberations and devise take reduction strategies (including collection of population abundance and mortality/serious injury data), researching the efficacy of alternative gear technologies (such as pingers), holding skipper workshops, monitoring the fishery, and enforcing the regulations in order to fully implement the plan. Further, the take reduction process is a multi-year process which relies on approximately two to three years of observer coverage, followed by up to a year of negotiations, several months to develop regulations, and ongoing monitoring, enforcement, and research. As a result, NMFS has followed statutory guidance on prioritizing take reduction efforts in the development of plans for marine mammal stocks of greatest concern (*i.e.*, those for which levels of incidental mortality and serious injury exceeds PBR, those that have a small population size, and those that are declining most rapidly).

Take reduction plans may also be developed for certain other marine mammal stocks that interact with commercial fisheries, when deemed necessary. The teams consist of representatives from commercial and recreational fishing industries, fishery management councils, interstate commissions, academic and scientific organizations, state officials, environmental groups, Native Alaskans or other Native American interests if appropriate, and NMFS representatives. These teams must be convened within 30 days of the issuance of final stock assessment reports and must submit their plans within six months for strategic stocks and within eleven months for non-strategic stocks.

The immediate goal of a take reduction plan is to reduce, within six months of its implementation, the incidental take of marine mammals below each marine mammal stock's PBR level, which is the maximum number of marine mammals that may be removed from the stock and allow the stock to reach or maintain optimum sustainable population levels. The long-term goal of a take reduction plan is to reduce, within five years of its implementation, the incidental take of marine mammals to insignificant levels approaching a serious mortality and serious injury rate.

These teams and NMFS are on tight, MMPA-mandated deadlines to develop and implement the regulatory framework for each plan. After each plan is adopted, NMFS and the team must meet at least annually to monitor progress toward the plan's goals. The first take reduction plan was finalized in 1997.

Over the last two years, NMFS has fully implemented three take reduction plans and partially implemented a fourth in conjunction with fisheries management. The following is a summary of each take reduction plan and progress that has been made in its implementation:

! The Pacific Offshore Cetacean TRT prepared a draft plan in August 1996 to address

incidental takes of beaked whales, pilot whales, pygmy sperm whales, sperm whales, and humpback whales in the California/Oregon swordfish drift gillnet fishery. The final rule fully implemented the team's plan, requiring that the top of the nets be set at a minimum depth of 36 feet below the water surface, that pingers be used on all nets, that the states of California and Oregon reduce the number of "inactive" permittees, and that vessel operators be required to attend educational workshops to educate them about marine mammals and the take reduction plan. NMFS' final plan and implementing regulations were published on October 3, 1997, and became effective October 3, 1997. In June 1998, the team determined that data regarding marine mammal takes in the 1997/1998 fishing season suggest the fishery has achieved its six-month goal of reducing takes to below PBR. An interim final rule was published on January 22, 1999, that allowed for safer deployment of pingers, by using longer attachment lanyards.

In May 1999, the team reconvened to review bycatch estimates for the 1998/99 fishing season. Although bycatch estimates derived from observer data suggest that the regulations have been effective at reducing the takes of small cetaceans, the PCTRT recommended that NMFS pursue more aggressive enforcement at-sea to monitor compliance with the regulations on unobserved vessels. The PCTRT also recommended that observer data be used judiciously for enforcement and that an aggressive approach toward insuring compliance with the observer requirement be pursued. The PCTRT recommended an experiment to test whether pingers attached to the floatline only would also be effective at reducing takes, and that NMFS and other members of the team investigate the development of alternative pingers that can be attached to the leadline for the entire fishing season. The PCTRT also recommended that skipper workshops be held again in 1999.

•**The Gulf of Maine Harbor Porpoise TRT** was formed to reduce the incidental take of harbor porpoise in the Gulf of Maine groundfish sink gillnet fishery. The team's draft plan, submitted to NMFS in August 1996, included closures which expand on those outlined in Amendment 7 of the Multispecies Fishery Management Plan and require the use of acoustic deterrent devices (pingers) to further reduce harbor porpoise bycatch. NMFS published the proposed rule on August 13, 1997; with the public comment period extending to January 14, 1998 to allow the team to reconvene before publishing a final rule. The team reconvened December 16-17, 1997 and expressed concerns about the ability of the proposed plan to sufficiently reduce bycatch. A revised proposed rule was published on September 11, 1998 (and was combined with a proposed rule for reducing harbor takes in the mid-Atlantic, see below. The Mid-Atlantic Coastal Gillnet TRT was formed to reduce incidental takes of harbor porpoise in ocean gillnet fisheries of the Mid-Atlantic. The team submitted their report to NMFS in August 1997. The final Harbor Porpoise TRP rule, combining management measures for the Gulf of Maine and the Mid-Atlantic, was published December 2, 1998 and was effective January 1, 1999. The final plan relies primarily upon time-area closures and pingers to bring takes of harbor porpoise down to below PBR). The Gulf of Maine and Mid-Atlantic Take Reduction Teams will reconvene in Fall, 1999, to discuss whether the Harbor Porpoise Take Reduction Plan has met the six-month goal of bycatch reduction.

•**The Atlantic Large Whale TRT** was established to develop a plan to reduce the incidental take

of right whales, humpback whales, fin whales, and minke whales in the South Atlantic shark gillnet fishery, the Gulf of Maine and Mid-Atlantic lobster trap/pot fishery, the Mid-Atlantic gillnet fishery, and the Gulf of Maine sink gillnet fishery. The team submitted a report to NMFS on February 1, 1997; however, the team did not reach consensus on all aspects of the plan. A final take reduction plan and implementing regulations were developed after considerable public input. The final regulations have minimal impacts on fisheries while insuring adequate strategies are implemented to reduce incidental takes of large whales. An interim final rule was published in July 1997, and a final rule was published February 16, 1999, with an April 1, 1999, effective date. On April 9, 1999, NMFS published a final rule with partial stay concerning the final rule's gear marking regulations until November 1, 1999, to allow the TRT to consider possible improvements.

•**The Atlantic Offshore Cetacean TRT** was formed to reduce the incidental take of right whales, humpback whales, sperm whales, beaked whales, pilot whales, common dolphins, bottlenose dolphins, and spotted dolphins in the Atlantic pelagic driftnet, longline and pair trawl fisheries. The team reached consensus on several strategies to reduce takes in each fishery and prepared a draft plan in November 1996. For each fishery, the team recommended that education and outreach materials be prepared and workshops be held. In the driftnet fishery, the team recommended a closure south of Hudson Canyon, an allocation of a pre-determined number of sets amongst fishers; limited entry into the fishery; 100% observer coverage; and a vessel buy-out program. In the longline fishery, the team recommended that strategies focus on the Mid-Atlantic (an area with high marine mammal bycatch). These strategies included: reducing the length of line; retrieving gear in reverse to reduce maximum soak time; limited entry into the fishery; moving fishing location after one marine mammal interaction; increasing observer coverage; and enhancing communication between fishers. Pair trawl gear is not currently authorized for fishing in the Atlantic tuna or swordfish fishery; therefore, the team's recommendations regarding pair trawl gear are no longer necessary and are not being implemented. After conducting a comprehensive review of the swordfish fishery, NMFS published a final rule prohibiting the use of driftnet gear in the North Atlantic swordfish fishery. Many of the recommended measures for reducing takes in the longline fishery are being implemented as part of the Highly Migratory Species Fishery Management Plan. NMFS is currently preparing a proposed take reduction plan for the non-regulatory aspects of the plan, as they pertain to the longline fishery. In addition, NMFS plans to reconvene the team by 2000 to review new data and to discuss the need for additional take reduction measures outside of those already being implemented.

Future Take Reduction Teams. NMFS is currently reviewing available information on other marine mammal stocks with significant levels of fisheries interactions to assist in the establishment of future take reduction teams.

Authorization for the Incidental Taking of Threatened or Endangered Marine Mammals

The MMPA Amendments of 1994 modified section 101(a)(5)(E) to allow for the take of marine mammals listed as endangered or threatened under the Endangered Species Act (ESA) incidental to commercial fishing operations, if it can be determined that: 1) incidental mortality and serious injury will have a negligible impact on the recovery of the affected species or stock; 2) a recovery

plan for that species or stock has been developed or is being developed; and 3) where required under section 118, a monitoring program has been established, vessels are registered, and a take reduction plan has been developed or is being developed.

In order to determine whether commercial fishing activities are having a negligible impact on endangered and threatened stocks of marine mammals, NMFS evaluated the total number of all incidental serious injuries and mortalities due to commercial fishing for each such stock based on information included in final stock assessment reports and in the Environmental Assessment prepared for the implementation of section 118 of the MMPA and published on August 30, 1995.

“Negligible impact” is defined as an impact that is not likely to adversely affect the species or stock through effects on annual rates of recruitments or survival. NMFS uses a standard of an impact that does not delay recovery of a species or stock by more than 10%.

On May 27, 1999, NMFS published in the Federal Register a notice of proposal for issuance of permits with a request for public comment. In this notice, NMFS proposes to issue permits for those fisheries that have negligible impacts on marine mammal stocks listed as threatened or endangered under the Endangered Species Act (ESA) for a period of three years. This would allow the incidental, but not intentional, taking of marine mammals in commercial fishing operations. This notice also includes NMFS’ revised process for determining negligible impact and a summary of NMFS’ findings with respect to which species or stocks are placed into which of the above mentioned categories.

Ecosystem Activities

The 1994 amendments called for the initiation of several ecosystem-oriented studies, as authorized in sections 110 and 120, to contribute to a better understanding of the ecosystem and potential declines in living marine resource populations. Following is a summary of these:

Bering Sea Ecosystem Study. The 1994 amendments required NMFS to develop a scientific research program to monitor the health and stability of the Bering Sea ecosystem and consult with the Secretary of the Interior, Marine Mammal Commission, the State of Alaska, and Alaska Native groups as part of the plan’s formulation under section 110. This research program was to resolve uncertainties concerning the causes of population declines in marine mammals, sea birds, and other living resources of the ecosystem. The 1994 amendments also required that the study consider the research recommendations developed by previous workshops on the Bering Sea, and that it include research on subsistence use of resources and ways to provide for the continued use of these resources based on relevant Alaska Native traditional local knowledge.

Prior to the 1994 MMPA amendments, NMFS and numerous other federal and state agencies and academic institutions already conducted research in the Bering Sea. However, the various research efforts were not coordinated from an ecosystem perspective. NMFS’ primary objective in undertaking this newly mandated research program was not to duplicate research already ongoing, but to coordinate among these programs and supplement this work as required. As a first step, NMFS developed a comprehensive ecosystem study plan to define research,

monitoring and assessment priorities. The plan was developed through a series of steps involving NMFS, other federal agencies, the State of Alaska and Alaska Native groups. NMFS completed the first draft of the plan in early 1995. During this phase, recommendations of previous Bering Sea workshops and symposia were reviewed and incorporated into the plan as appropriate. The plan was circulated to the Marine Mammal Commission, State of Alaska, U.S. Fish and Wildlife Service, National Biological Survey, Alaska Native organizations and others for review and comment and was consequently revised.

In November 1995, NMFS sponsored a workshop in Alaska to review current Bering Sea research efforts, determine gaps in current research efforts, finalize the study plan, and determine how the research would be conducted. The workshop was attended by over 90 participants from NOAA, the above-mentioned agencies and organizations, and the general public, and was successful in reviewing current research efforts and research gaps. Alaska Native organizations at the workshop focused on the role of traditional environmental knowledge in the study. Further development of the scientific plan will incorporate any Alaska Native input on traditional environmental knowledge once it is available, although much of the research plans are being carried out through the University of Alaska's North Pacific Marine Research Initiative.

Gulf of Maine Ecosystem Workshop. NMFS was required to establish a Pinniped-Fishery Interaction Task Force to advise the agency on issues arising from pinnipeds acting in dangerous in damaging ways with aquaculture operators in the Gulf of Maine. NMFS was required to submit to Congress a report on interactions between pinnipeds and aquaculture activities in the Gulf of Maine. To achieve these mandates, NMFS convened a workshop in September 1995 on the Gulf of Maine ecosystem to assess human-caused factors affecting the health of the ecosystem under section 110. The workshop objectives were to: 1) assess the human-caused factors affecting the health and stability of the Gulf of Maine ecosystem; and 2) identify research and management options to restore and/or maintain the environmental quality of the ecosystem. Over 70 participants from state and federal government, academic institutions, non-governmental environmental organizations, and fishing groups as well as private citizens gathered to discuss the status of the ecosystem. The Executive Summary report of the workshop, as well as a NMFS report including major conclusions and recommendations on research, management and legislation, was forwarded to Congress on January 23, 1996. The final workshop proceedings were completed on April 30, 1996.

Permitting the Take of Marine Mammals

The MMPA places a moratorium, subject to certain exceptions, on the taking and importing of marine mammals and marine mammal products. One exception to the moratorium provides for the issuance of permits by NMFS for specific takes of marine mammal species. Under this statute, permits may be issued for public display, scientific research, enhancement, and photography. NMFS issues an average of 28 permits per year. Since 1994, 140 new permits have been issued. Of these, 122 were for scientific research and enhancement, 10 were for photography and 8 were for public display.

The amendments in 1994 made significant changes to sections 102 and 104 of the MMPA

governing permits for public display, scientific research, and enhancement activities of marine mammal species and stocks such as management projects to increase stock sizes in the wild. Among other things, the amendments added new provisions and prohibitions for scientific research and enhancement; substantially reduced NMFS' jurisdiction over marine mammals held in captivity for public display; and established a new permit category for photographing marine mammals.

On May 10, 1996, NMFS published a final rule in the Federal Register that amended the regulations for permits under the MMPA, the ESA and the Fur Seal Act (FSA). This rule updates and consolidates the regulations for special exception permits and establishes basic permit requirements applicable to all permits to take, import, and export marine mammals and marine mammal parts for purposes of scientific research and enhancement, photography, and public display under the MMPA. It also provides additional permit issuance criteria specific to scientific research and enhancement only, and establishes administrative procedures for determining the releasability or non-releasability of stranded marine mammals and their disposition after this determination.

Definition of “Harassment.” In 1994, harassment was defined as the as “any act of pursuit, torment, or annoyance” which has the potential to injure or to disturb a marine mammal or marine mammal stock in the wild. The phrase “any act of pursuit, torment, or annoyance” is subject to differing interpretations. Narrowly interpreted, it means that only activities involving pursuit, torment, or annoyance would constitute harassment. However, this narrow interpretation may not cover all activities that may, in fact, disturb or injure marine mammals. For example, certain types of eco-tourism activities and releasing captive marine mammals to the wild clearly have the potential to disturb and/or injure the animals, although they may not necessarily meet a narrow interpretation of pursuit, torment, or annoyance.

General Authorization for Scientific Research. The MMPA Amendments of 1994 eliminated the requirement that research not be duplicative and allowed NMFS to waive the 30-day comment period in certain “emergency” circumstances. Scientific research is divided into two categories: those activities for which a permit is required and those for which a General Authorization is issued. *Bona fide* scientific investigations involving research of marine mammals in the wild that does not exceed Level B harassment may be conducted under the General Authorization (GA).

For clarification in implementation, the 1994 amendments also provided new definitions of “harassment.” Level A harassment is defined as, “any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild.” Level B harassment is defined as, “any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.”

In lieu of a research permit, the GA provides a simplified process for authorizing research

involving Level B harassment. To carry out the GA process, an Interim Final Rule was published on October 3, 1994, and a final rule governing research conducted under the GA is expected to be published later this year. Activities that are typically expected to cause no more than Level B harassment are: photo-identification, behavioral observations, and vessel and aerial population surveys. GA applicants must submit a Letter of Intent to conduct one or all of the Level B activities. The MMPA requires, within 30 days, that NMFS either: 1) confirm that the GA applies to the proposed research and issue a Letter of Confirmation; 2) notify the applicant that the Letter of Intent contains activities that could likely result in Level A harassment and a permit is required; or 3) notify the applicant that the Letter of Intent is insufficient or that the research is not *bona fide*. During 1998, nine Letters of Confirmation were issued. Since 1994, 55 letters of intent have been received, 46 have been issued.

The GA provision has worked well for both established scientists and students conducting research in pursuit of graduate degrees. The primary complaint scientists have about the GA is that it does not include endangered species. Level B harassment research activities on endangered or threatened marine mammals requires a section 10 permit under the ESA.

Photography Permits. The MMPA Amendments of 1994 added a new category of permits to allow marine mammals in the wild to be photographed for educational and commercial purposes. These permits are limited to Level B harassment and require that the photographic products be made available to the public.

NMFS plans to implement regulations specific to photography permits after resolution of concerns about “harassment,” as defined by the 1994 amendments. In the meantime, photography permits are being processed on a pilot basis, relying on the statute and existing permit regulations. We believe that delaying regulations for commercial and educational photography permits until there is a clear interpretation of the harassment language is necessary in order to avoid further inequities and legal complexities.

If conducted responsibly, photography by knowledgeable professionals has less impact on wild marine mammals than many commercial or recreational activities. Whereas the goal of nature photography is to minimize disturbance in order to capture the subjects’ natural behavior, certain recreational interactions do just the opposite by directly influencing and changing the animals’ natural behavior (*e.g.*, swim-with programs).

Permits for Export of Marine Mammals. The 1994 amendments added a new prohibition on the export of marine mammals and marine mammal parts. Although exportation of marine mammals for purposes of public display was specifically provided for in section 104(c), no marine mammal may be exported for the purpose of public display, scientific research, or enhancement activities unless the receiving facility meets standards that are comparable to the requirements for permits under the MMPA for that purpose. Under this provision, marine mammals may be exported from U.S. facilities as long as the foreign recipient meets requirements comparable to those a U.S. recipient must meet.

Because foreign facilities are not subject to licensing or registration requirements under the Animal Welfare Act, it is only through the MMPA's comparability requirement that adequate care of marine mammals transferred to foreign facilities can be assured. Following a policy established in 1975, NMFS continues to require the foreign government with jurisdiction over the facility to provide a certification that includes a statement that the foreign government will afford comity to a U.S. decision concerning the care of transferred marine mammals.

Public Display/Captive Care and Maintenance. Under the 1994 amendments, NMFS' authority to condition public display permits associated with specifying methods of supervision, care, and transport was limited to marine mammals being captured from the wild or imported for the first time without benefit of a previously issued permit. The Department of Agriculture's Animal and Plant Health Inspection Service, (APHIS), which previously had concurrent jurisdiction, now has sole responsibility for setting the standards of the care and maintenance of marine mammals held for public display purposes.

A proposed rule was published in October 1993 to consolidate into a single set of regulations all permitting requirements under the MMPA, the ESA, and the Fur Seal Act to take, import, or export all protected species under NMFS jurisdiction for purposes of scientific research or enhancement and public display. However, the 1994 amendments to the MMPA significantly changed the scope and extent of NMFS' permitting authority for public display purposes, thus eliminating the basis for many of the provisions concerned with public display in the proposed rule as well as the regulations then in effect.

A final rule was prepared and published in May 1996 to implement parts of the 1993 proposed rule that were not as significantly affected by the 1994 amendments. That final rule, which became effective on June 10, 1996, established basic reporting, record-keeping and other permit requirements under the MMPA to take, import and export marine mammals for purposes of scientific research, enhancement, photography and, where captures and initial imports are involved, for public display. It did not, however, implement public display-specific requirements of the MMPA, as amended. Because of the magnitude of the changes that were made in the MMPA's public display provisions, it was decided that permitting and other requirements specifically concerned with capturing, importing, exporting, or transporting marine mammals for public display under the MMPA as amended would be best addressed in the form of a new proposed rule.

NMFS drafted new proposed regulations which will formalize procedures that are currently being followed. Publication of this proposed rule is expected in the *Federal Register* by August 1999.

While rulemaking had to be delayed, NMFS placed priority on developing procedures for the inventory/notification system, now required by law, and on negotiating a revised Memorandum of Agreement (MOA) with APHIS and the U.S. Fish and Wildlife Service, for consistent implementation of public display requirements. The MOA was signed by all three agencies on July 21, 1998.

Transfer of Marine Mammals Held for Public Display. As a result of the MMPA Amendments of 1994, public display permits are no longer required to hold captive marine mammals. Instead, holders may transfer captive marine mammals from one holder to another provided NMFS is notified 15 days in advance of the transport, and the recipient: 1) offers a program for education or conservation purposes, 2) is registered or holds an exhibitor's license issued by APHIS under the AWA; and 3) maintains a facility that is open to the public on a regularly scheduled basis. Foreign recipients of U.S.-source marine mammals must meet standards comparable to those applicable to their domestic counterparts. Since foreign facilities are not licensed under the AWA, NMFS must receive a letter of determination from APHIS stating that the foreign facility meets these standards. NMFS has developed formats for notifications and reporting. These procedures will be formalized through rulemaking.

Inventory of Marine Mammals in Captivity. Pursuant to the MMPA Amendments of 1994, NMFS maintains a basic inventory of marine mammals held in captivity. The 1994 amendments limited NMFS' inventory requirements to the animal's name, sex, date of birth, source, acquisition, disposition, name of recipient and (if appropriate) its date of death and cause of death when determined. Currently, there are 2296 live marine mammals on the Marine Mammal Inventory. Of these, 1367 are maintained in the United States. To ensure compliance with the new statutory requirements and in conjunction with ongoing efforts to reduce and streamline reporting and notification requirements, NMFS has entered into a Cooperative Agreement with the International Species Information System (ISIS) to administer the captive marine mammal inventory database, including marine mammal transport notifications. ISIS is an international membership organization that manages an inventory database for over 500 institutions. It is estimated that about one-half of the inventory updates are reported separately to both databases. NMFS has briefed the Marine Mammal Commission, Alliance of Marine Mammal Parks and Aquariums, and the American Zoo and Aquarium Association, and all have received this very favorably. Implementing procedures will be outlined in the proposed public display regulations.

Marine Mammal Deterrence Guidelines

The 1994 amendments allowed persons to prevent marine mammals from damaging private or public property, or from endangering personal safety, as long as the animal is not killed or injured. NMFS was required, after consultation with experts and after notice and opportunity for comment, to develop guidelines for use in deterring marine mammals, and to prohibit certain forms of deterrence that may significantly harm marine mammals. On May 5, 1999, NMFS published proposed deterrence guidelines, which would provide guidance for U.S. citizens to non-lethally deter marine mammals from: 1) endangering public safety; 2) damaging fishing gear and catch; or 3) damaging public or private property. The proposed guidelines would classify deterrence measures based on whether they cause serious injury or mortality. The incentive for following the guidelines would be protection from liability in the event that the deterrence measure inadvertently causes death or serious injury. Based on comments received, NMFS is revising the proposed guidelines to ensure clarity.

In addition, NMFS intends to issue an interim rule for prohibited deterrence measures based on comments to the proposed rule. After convening a group of experts on marine mammals and

effective deterrence measures, NMFS then plans to publish a new proposed rule establishing revised regulations for safely deterring marine mammals. To ensure that these new regulations are enforceable, this group of experts will include law enforcement officials. This group will also recommend any additional deterrence devices that should be prohibited.

Small Take/Incidental Harassment

Section 101(a)(5) was modified by the MMPA Amendments of 1994 to establish an expedited permit-like process by which U.S. citizens can apply for an authorization to harass small numbers of marine mammals incidental to activities other than commercial fishing under section 101(a)(5)(D). This “small take” authorization is often given for oil and gas exploration, military exercises, and other localized activities. Other forms of small, incidental take (other than fishing) remain subject to the MMPA’s previous requirement for rulemaking. These modifications established specific time limits for processing the application, for public notice and comment on the application, and for issuance or denial of the authorization.

On May 31, 1995, NMFS amended the “small take” regulations to implement the process for issuing harassment authorizations without the need to issue specific regulations governing the taking of marine mammals for each and every activity. These new regulations set forth the process for: applying for and obtaining an authorization; the time limits set by the statute for NMFS review, publication, and public notice and comment on any applications for authorization that would be granted; and the potential requirements for submission of a plan of cooperation and for scientific peer review of an applicant’s monitoring plans. On April 10, 1996, NMFS again amended the small take regulations to clarify the requirements for obtaining a small take authorization and for requesting NMFS’ concurrence that no marine mammal takes are likely.

Increasing Pinniped Populations

Conflict between humans and pinnipeds can take a variety of forms and has become common between expanding pinniped populations and human activities. These conflicts may result in harassment, injury, or death of marine mammals or in the modification of the habitats upon which they depend. Although the MMPA Amendments of 1994 added section 118(a)(5), which specifically prohibited the intentional lethal taking of marine mammals in the course of commercial fishing operations, section 101(c) was maintained to authorize intentional lethal taking if imminently necessary in self-defense or to save the life of a person in immediate danger. Due to increasing conflicts between growing pinniped populations and their interactions with declining salmonid stocks as well as human activities, section 120 (authorizing lethal removal in specific circumstances and mandating that NMFS conduct scientific investigations and prepare two Reports to Congress to recommend measures to address pinniped impacts on the ecosystems of the Gulf of Maine and along the West Coast of the United States) was added to the MMPA in 1994.

Lethal Removal Authority. The 1994 amendments allowed states to apply for permission to lethally remove individually identified pinnipeds that are having a significant negative impact on the decline or recovery of certain salmonid fishery stocks, and gave NMFS the authority to allow

such removal.

In 1995, NMFS authorized the state of Washington to lethally remove certain pinnipeds to protect the wild, winter-run steelhead at Ballard Locks, but only after testing the feasibility of holding these sea lions in temporary captivity. In 1996, NMFS modified that authorization to remove the requirement for temporary captivity after finding such an approach unfeasible. The Humane Society of the United States filed suit to block NMFS authorization to the State of Washington to kill three individually identifiable sea lions. Sea World of Florida offered to take the animals into permanent captivity. The Humane Society amended its complaint to include that action as well. The sea lions were removed to permanent captivity at Sea World in May 1996, and steelhead passage at the Ballard Locks improved substantially in subsequent years. The U.S. District Court for the District of Columbia granted the Federal government's motion for summary judgement in April 1999.

During the 1997 steelhead season, there seemed to be a dramatic decrease in the numbers of sea lions observed at the Ballard Locks. This difference in sea lion presence appears directly related to the absence of the predatory sea lions, which were captured and taken into captivity. The predatory sea lions accounted for about 60% of the sea lion presence in 1996 and likely would have been at the Locks (based on past patterns) in 1997 had they not been removed.

The 1997 observations indicate that permanent removal of known predatory sea lions reduces the presence of sea lions during the steelhead run and may have a beneficial effect on reducing recruitment of new sea lions to the area. The information on sea lion presence collected in 1997 indicates that past predatory sea lions are not replaced rapidly. It also does not appear that new sea lions are frequently exploring the Ballard Locks area in the absence of the predatory animals that constantly entered the Locks area (*i.e.*, new animals are not following the predatory sea lions into the Locks area and becoming aware of the site). Consequently, Washington Department of Fish and Wildlife reported a substantial increase in steelhead spawning escapement over the past four years. However, sea lion activity in the ensonified zone at Ballard Locks has increased in late 1998 and early 1999.

Pinniped Reports to Congress. NMFS prepared Reports to Congress to recommend measures to address pinniped issues in the Gulf of Maine and along the West Coast. Both reports include recommendations to Congress to streamline the process to allow lethal taking of certain pinnipeds and to take other actions to understand the impacts of pinnipeds on other activities or components of the ecosystem and to mitigate these impacts. The Gulf of Maine report was submitted to Congress in June 1997. It recommended that the industry perform several actions to reduce or mitigate seal predation.

The West Coast report was made available for public review and comment in March 1997. After receiving thousands of comments on this draft, NMFS summarized and responded to comments and revised the report. The final report was submitted to Congress in February 1999 and contained four recommendations: A framework for site specific management to reduce pinniped predation on salmonids and reduce human/pinniped conflict - the framework addresses lethal

removal of certain pinnipeds; selective reinstatement of the authority for fishermen to lethally remove certain pinnipeds in the course of commercial fishing operations - consistent with NMFS' 1992 legislative proposal; development and implementation of non-lethal deterrence technologies; and a list of research needed to address uncertainties related to pinniped effects on salmonid stocks and the status of pinniped stocks.

Marine Mammal Cooperative Agreements in Alaska

The 1994 amendments also provided for cooperative agreements between NMFS and Alaska Native organizations to conserve marine mammals and provide co-management of subsistence use by Alaska Natives under section 119. The amendments specifically provided NMFS with the authority to provide grants to Alaska Native organizations to: collect and analyze data on marine mammal populations; monitor the harvest of marine mammals for subsistence use; participate in marine mammal research; and develop co-management structures with Federal and state agencies.

In April 1996, the Indigenous People's Council for Marine Mammals (IPCMM) expressed to NMFS and U.S. Fish and Wildlife Service (FWS) its concern about the need to develop a framework for governing the development of cooperative agreements for individual species of marine mammals. It provided a draft agreement for consideration and, after several workshops and drafting sessions, an official Memorandum of Agreement (MOA) was signed by NMFS, FWS, the U.S. Geological Survey, and IPCMM on August 27, 1997.

This umbrella agreement was designed to assist in the development and implementation of section 119 agreements and promote the sustained health of marine mammal populations utilized for subsistence. The MOA recommends that section 119 agreements consider: collection and analysis of marine mammal natural history and population data; development of co-management infrastructures; cooperation in enforcement efforts; establishment of harvest levels; development and distribution of public education materials; development of management plans; incorporation of traditional knowledge into management decision making; and training.

The following agreement has been completed:

Alaska Native Harbor Seal Commission (ANHSC) - On April 29, 1999, NMFS and the Alaska Native Harbor Seal Commission signed an agreement to work together in developing a co-management plan for harbor seals throughout their Alaskan range. This agreement creates a framework to develop specific conservation actions in an action plan.

The following agreements are in negotiation:

Alaska Beluga Whale Committee (ABWC) - NMFS staff received a draft cooperative agreement from ABWC and reviewed it. NMFS is currently in negotiation with ABWC to develop a mutually satisfactory agreement that would affect conservation of four of the five stocks of beluga in Alaska (omits Cook Inlet).

Cook Inlet Marine Mammal Council (CIMMC) - Because of the dramatic decrease in abundance of this stock, a co-management agreement to set harvest limits is particularly important. NMFS initiated negotiations with the Cook Inlet Marine Mammal Council to achieve this goal. However, the process was complicated by the fact that a majority of the hunters were not affiliated with the Cook Inlet Treaty Tribes. The passage of the Stevens amendments to the Supplemental Appropriations Bill has provided a short-term solution to this problem, by prohibiting the harvest of Cook Inlet belugas until October 2000, except under a co-management agreement. NMFS is currently negotiating such an agreement.

Tribal Government of St. Paul - A draft co-management agreement has been completed between NMFS and the Tribal Government of St. Paul, which initiates the shared process of the management and research on northern fur seals and Steller sea lions on the rookeries of the Pribilof Islands. Most of the components of the agreement have been in place and operational since 1997, but have not been formalized through an agreement. Both NMFS and the tribal government are working towards formalizing this completed agreement.

Section 119 authorized \$1.5 million to support grants to ANOs pursuant to the cooperative agreements; however, no funds have been appropriated to date specifically for this purpose. Because agreements were not in place until very recently, NMFS has neither requested nor received appropriations specifically to support these agreements during the past two years. However, the President's budget for FY00 does include an additional request for co-management funds.

Statutory Deadlines for NMFS Implementation of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Achievement
04/30/94	Enactment of the 1994 amendments	N/A
06/29/94	Establish regional scientific review groups	06/30/94
07/29/94	Publish proposed changes to the List of Fisheries	09/01/94
08/01/94	Complete draft stock assessments	08/09/94

Statutory Deadlines for NMFS Implementation of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Achievement
09/01/94	Issue General Authorization for scientific research	10/03/94
10/27/94	Initiate program to monitor health and stability of the Bering Sea ecosystem	early 1995
01/01/95	Publish proposed implementing regulations for the amendments	06/16/95
01/28/95	Publish final stock assessments	1995
02/27/95	Establish take reduction teams for strategic stocks	Pacific Offshore Cetacean TRT 02/15/96 Harbor Porpoise TRT 02/12/96 Mid-Atlantic TRT 02/25/96 Atlantic Offshore Cetacean TRT 05/23/96 Atlantic Large Whale TRT 08/06/96
04/30/95	Convene workshop on Gulf of Maine ecosystem	09/95

Statutory Deadlines for NMFS Implementation of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Achievement
08/27/95	Develop draft take reduction plans for strategic stocks for which human-caused deaths exceed PBR	Pacific Offshore Cetacean TRP 08/15/96 Harbor Porpoise TR 08/08/96 Mid-Atlantic TRT 08/25/96 Atlantic Offshore Cetacean TRT 02/05/97 Atlantic Large Whale TRT 11/25/96
09/01/95	Publish final regulations implementing section 118	08/30/95
09/01/95	Issue an interim permit to fisheries that have negligible impacts on marine mammals listed as threatened or endangered under the Endangered Species Act, to allow for incidental, but not intentional, taking in commercial fishing operations	08/31/95

Statutory Deadlines for NMFS Implementation of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Achievement
10/01/95	Report on investigations of impacts of California sea lions and harbor seals on salmonids and West Coast ecosystems	02/99
12/31/96	Report to Congress on Gulf of Maine workshop	01/23/96
01/27/96	Develop draft take reduction plans for non-strategic stocks and strategic stocks where human-caused takes are less than PBR	
03/27/96	Complete take reduction plans for strategic stocks for which human-caused deaths exceed PBR	Pacific Offshore Cetacean TRP 10/03/97 Harbor Porpoise TRP 12/02/98 Atlantic Large Whale TRP 02/16/99
04/30/96	Report on interactions between pinnipeds and Gulf of Maine aquaculture operations	06/23/97

Statutory Deadlines for NMFS Implementation of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Achievement
08/24/96	Complete final take reduction plans for non-strategic stocks and strategic stocks where human-caused takes are less than PBR	
05/01/97	Initiate review of progress of fisheries toward reducing incidental mortality and serious injury to insignificant levels approaching a zero rate	09/97
04/30/98	Report to Congress on progress of fisheries toward reducing incidental mortality and serious injury to insignificant levels approaching a zero rate	
04/30/01	Achieve reduction of incidental mortality and serious injury to insignificant levels approaching a zero rate in all commercial fisheries	

Statutory Deadlines for NMFS Implementation of the MMPA Amendments of 1994

Statutory Deadline	Statutory Requirement	Date of NMFS Achievement
N/A	Publish prohibition on intentional lethal taking of marine mammals in commercial fishing operations	02/01/95
N/A	Develop guidelines for use in safely deterring marine mammals	05/05/99 (proposed)
N/A	Establish and maintain inventory of all marine mammals in public display	Conversion of currently maintained inventory to new PPIMS database 1995
N/A	Establish cooperative agreements in Alaska	Umbrella Agreement (IPCMM) 08/27/97 Harbor Seal Agreement 04/29/99
N/A	Provide authority for removal of pinnipeds	1995